

Programmatic Environmental Impact Statement/Environmental Impact Report (Draft, March 1998)

- xvi In the list of acronyms the Solano County Flood Control and Water Conservation is listed. district was renamed the Solano County Water Agency by state legislation in 1989.
- Page 2-10 Add a bullet under "*Potential concerns of the habitat restoration program include:*" regard economic impacts from the conversion of agricultural land to habitat restoration. The economic impacts are to local public agencies and the general economy of the area near habitat restoration programs.
- Page 2-10 The list of potential concerns of the habitat restoration program should include a bullet on the potential impacts on drinking water quality (organic carbon) and ecosystem water quality (mercury).
- Page 2-11 Water use efficiency measures may actually concentrate the pollutants in drain water and result in adverse impacts at locations receiving the drain water discharges. This could result in water quality criteria being exceeded in receiving waters.
- Page 2-11 The third item in the list of benefits of the Water Quality Program should be amended to state "In conjunction with storage and conveyance alternatives, improves drinking water quality at some locations and provides public health benefits." The Water Quality Program will not improve the North Bay Aqueduct water quality.
- Page 2-12 The fourth item in the list of benefits of the Water Quality Program should be amended to state "May reduce concentration of organic carbon at some intake locations. Organic carbon contributes to the formation of disinfection byproducts in drinking water supplies." The Water Quality Program will not reduce organic carbon concentrations at the North Bay Aqueduct intake and will not likely reduce bromide concentrations at any of the water supply intakes in the Delta.
- Page 2-12 The list of potential concerns of the Water Quality Program should include "Source control actions will not significantly reduce bromide concentrations at drinking water intakes."
- Page 2-12 Add a paragraph under "*Water Use Efficiency Program*" to explain that water conservation done in some areas, like the Sacramento Valley, does not result in "new water" because water not conserved re-enters the system for other water users to make beneficial use of the water. Only water conservation that results in reduction of flows to the ocean or to other unusable water supplies result in water savings to the system.
- Page 2-16 The CALFED Coordinated Watershed Management Program should provide funding and technical resources to individual watershed efforts that are underway in the Sacramento Basin and should initiate a San Joaquin watershed program, similar to the Sacramento River Watershed Program. The CALFED program could potentially provide assistance with

coordinated monitoring and workshops on best management practices and funding opportunities.

- Page 2-16 One of the stated goals of the Coordinated Watershed Management Program is to implement data collection and standardized monitoring. We thought the Comprehensive Monitoring Assessment and Research Program (CMARP) was responsible for these activities. These CALFED efforts should be coordinated.
- Page 2-17 The relocation of habitat restoration activities from the south Delta to the north Delta acknowledges that it would be “prudently distant from the South Delta pumping facilities” but it does not acknowledge that the new habitat would be in close proximity to the North Bay Aqueduct pumping plant on Barker Slough. This is inconsistent with the CALFED solution principle of “no significant redirected impacts” unless the North Bay Aqueduct pumping restrictions for Delta smelt are lifted or an alternative intake is provided for the North Bay Aqueduct.
- Page 2-17 In Section 2.3.3.1 there are references to “*six programs*” and “*six alternative elements*.” I presume these are the six common programs. Consistent references to the common programs should be made throughout this section to avoid the impression that there are other elements incorporated into the alternatives. The water transfers and watershed management common programs are not listed with the other common programs. In the description for Alternative 1B and 1C there should be a note that although all six of the common programs are not listed each time, they are a part of Alternatives 1B and 1C.
- Page 2-22 The discussion of relocating the North Bay Aqueduct intake should acknowledge that habitat restoration activities in the northwestern Delta are another potential reason for relocating it. This comment applies to the description of Alternative 2 and Alternative 3.
- Page 2-22 The discussion of the Water Quality Program additions should include relocating Delta island drainage discharges away from the drinking water intakes or treating the Delta island drainage to remove organic carbon.
- Page 3-2 Under “*Water Quality*” there should be a separate section for in-Delta water quality impacts. In that new section it should be noted that none of the alternatives will improve the quality of the North Bay Aqueduct.
- Page 3-7 Under “*Agricultural Economics*” there is mention of a loss of jobs and economic income in the San Joaquin River region as lands are retired. A similar statement should be added to the Delta region due to conversion of agricultural land to ecosystem habitat.
- Page 3-8 Under “*Agricultural Social Issues*” add that the Delta region will suffer a loss of jobs as agricultural lands are converted to ecosystem habitat.
- Page 3-9 There is a statement under the Other Programs column that the Water Quality Program has flood control benefits. Based on a review of the Water Quality Program actions,

unclear as to how the Water Quality Program will benefit flood control.

- Page 3-9 Under "*Utilities and Public Services*" add that conversion of agricultural land to ecosystem restoration may reduce revenues to public agencies providing public services.
- Page 4-6 Figure 4-2 should include the North Bay Aqueduct.
- Page 6.1-10 The Ecosystem Restoration Program may also increase TOC and mercury concentrations in Delta waters.
- Page 6.1-11 A discussion of the impacts of the No Action Alternative and Alternative 1 on the North Bay Aqueduct water quality should be included.
- Page 6.1-12 In the second paragraph under "*Discussion For Alternative 2,*" the water quality impacts for the North Bay Aqueduct should be described along with the other locations described in the Delta. The discussion for Alternative 3 should also describe the impacts on the North Bay Aqueduct.
- Page 6.1-13 The potential adverse water quality impacts of the ERP should be acknowledged.
- Page 6.1-13 The description of the impacts of the Water Quality Program is inadequate. The level of detail and explanation provided for the other program elements should be included for the Water Quality Program. Overall, the Water Quality Program will have beneficial impacts on river Delta water quality, although North Bay Aqueduct water quality will not likely be improved sufficiently to meet target levels for TOC and bromide.
- Page 6.1-13 The Levee Program could also result in mobilization of metals and organics during construction activities and afterwards.
- Page 6.1-15 There are several notable errors on the map. New Melones Reservoir is on the Stanislaus River, not the American River; the California Aqueduct and Delta Mendota Canal are mislabeled, and the North Bay Aqueduct does not extend into Marin County.
- Page 6.1-19 In the listing of principal sources of parameters of concern the following additions should be made: Stormwater - dissolved solids; Municipal and industrial wastes - organic carbon, pesticides; Surface agriculture - organic carbon
- Page 6.1-19 In the last bullet there is a statement that "High metals concentrations have the greatest potential for adverse effects on drinking water supply and environmental and recreational uses." High metals certainly impact aquatic life and the ability to consume aquatic organisms with high body burdens of metals affects humans. Most metals concentrations in the Delta are well below drinking water standards. The parameters that have the greatest impact on drinking water quality are TOC, bromide, turbidity, pathogens, and dissolved solids.
- Page 6.1-20 The list of parameters of concern should be updated to agree with the most recent list developed by the Water Quality Technical Group and Parameter Assessment Team.

- Page 6.1-21 and 22 There are inconsistencies in the descriptions of tributaries to San Francisco Bay on these two pages.
- Page 6.1-23 The discussion of mining impacts needs to include the mining of mercury from the Coast Range. These mining activities have had long-term impacts on Delta water quality.
- Page 6.1-31 The discussion of water supply and water management should include other diverters/export in addition to the SWP and CVP exports. For example, East Bay Municipal Utility District the City of San Francisco export water from the Mokelumne and Tuolumne rivers, respectively.
- Page 6.1-33 In the first full paragraph on this page there is reference to pumping done at Banks, Tracy, Slough, and the North Bay Aqueduct. This paragraph fails to recognize that there is agricultural pumping in the Delta also.
- Page 6.1-32 Section 6.1.2.1 should discuss how the CALFED models simulate the hydrodynamics and water quality at the North Bay Aqueduct intake. This is critical to understanding the effects of the alternatives on the North Bay Aqueduct.
- Page 6.1-43 Table 6.1.2-2 identifies increased salinity at Rock Slough for the different alternatives however it does not for the North Bay Aqueduct. Information on the North Bay Aqueduct should be included.
- Page 6.1-55 The discussion of Environmental Consequences: Water Quality contains many statements that are not referenced. References must be provided for statements such as "pollutant loads from wastewater treatment plants and urban runoff are expected to increase by 60%." This is one example of many unreferenced statements that are in this section.
- Pages 6.1-56 and 6.1-57 These pages contain information on the effects of the alternatives on the water quality at the Contra Costa Canal intake while no information is provided on the water quality of the North Bay Aqueduct intake. Comparable information should be presented on the North Bay Aqueduct intake.
- Page 6.1-60 The ERP could potentially result in mobilization of metals in soils used for habitat restoration.
- Page 6.1-60 The ERP could result in salinity increases as a result of evapotranspiration by the increased biomass.
- Page 6.1-60 The statement that "*The only potential long-term adverse water quality impact of Ecosystem Restoration Program is an increase in water salinity attributable to increased evaporation*" is erroneous. As stated previously, evapotranspiration could result in salinity increases. In addition, the ERP could potentially increase TOC concentrations in Delta waterways and result in the methylation of mercury in marshes. These are both potentially long-term significant impacts that need to be identified and evaluated.
- Page 6.1-60 The discussion of the impacts of the various programs is very limited and needs to be greatly expanded.

expanded. For example, what impacts might occur as a result of the mine drainage, urban runoff, wastewater, agricultural, etc. actions in the Water Quality Program.

- Page 6.1-64 The statement, "*The solubility of oxygen in water increase proportionately to water temperature*" is erroneous. Dissolved oxygen concentrations are inversely proportional to temperature.
- Page 6.1-54 An explanation is needed for the apparent disappearance of metals in the Sacramento River system.
- Page 6.1-61 Water conservation may increase the concentrations of pollutants and result in adverse impact on aquatic life.
- Page 6.1-65 The Central Valley Regional Water Quality Control Board's Basin Plan for the Sacramento Basin prohibits the discharge of certain pesticides at levels exceeding water quality goals for rice fields. These prohibitions do not apply to all agricultural practices as stated in the document.
- Page 6.1-67 The "*mixture of benefits and adverse consequences*" outside of the Central Valley needs to be more fully described.
- Page 6.1-67 The discussion of mitigation strategies is limited to a cursory discussion of the impacts of construction activities. A discussion of mitigation strategies for long-term impacts of the CALFED program on water quality must be included in the Revised draft PEIS/EIR. Several examples of long-term impacts include the potential for ecosystem restoration activities to increase organic carbon concentrations and toxic mercury concentrations in the Delta and the potential for water conservation activities to lead to higher concentrations of agricultural chemicals in receiving waters.
- Page 6.1-68 There is a statement that the significant impacts are believed to be avoidable. There should at least be a list or a brief summary of what CALFED considers to be the significant impacts and why they are avoidable.
- Page 6.1-69 In the first paragraph under "*Alternative 3*" the paragraph states that the impact of the operation of the isolated facility would have less than significant impact on Delta water supplies even though there would be less water flowing through the central Delta. This section should be expanded to include the data, or at least footnote the source of the information, used to come to the conclusion of a less than significant impact.
- Page 6.1-70 Figures 6.1.4.1 and 6.1.4.2 should be expanded to include wet years and below normal and dry years to get a full range of water supply deliveries with the three alternatives.
- Page 6.1-74 This page discusses the two figures discussed above. Interspersed throughout this section are the assumptions used in developing the figures. It would be convenient to have one paragraph or one table listing the assumptions made in these runs.

- Page 6.2-16 In the fourth full paragraph in the second column there is reference to the Solano County Fl Control and Water Conservation District. The correct name is the Solano County Water Agency.
- Pages 7.1-36 and 7.1-37 The fourth full paragraph in the second column of page 7.1-36 discusses conversion of Delta agricultural lands to inundated wetlands and open water habitat as part of the ecosystem restoration program. The paragraph mentions that south Delta and central Delta habitat locations are not ideal because of the influence of the south Delta export pumps. This section goes on to state that the north Delta is a better choice for habitat restoration. This section fails to note that there are intakes in the north Delta that could adversely affect habitat restoration projects in the north Delta, including the North Bay Aqueduct. This does not preclude the establishment of habitat restoration projects near these intakes, however there must be an acknowledgment that some additional take will occur with the increased habitat and the water supply facilities must have an exemption from any adverse impacts or restrictions due to the establishment of new habitat.
- Page 7.1-42 In Section 7.1.2.7 mitigation strategies for fisheries and aquatic ecosystems are identified. Impact of implementation of the ecosystem restoration plan, with the potential emphasis on north Delta is that diversions in north Delta, in particular the North Bay Aqueduct, could be adversely affected by the presence of more special status species. Mitigation strategies should be identified for the potential of increased pumping restriction. Mitigation strategies such as relocation of the intake and/or a "safe harbor" provision should be identified.
- Page 8.1-9 In the paragraph on the State Water Project, the paragraph will be clearer if only the counties (or areas) receiving State Water Project agricultural supplies are listed.
- Page 8.1-26 In the first partial paragraph on the page the text states that "*benefits (or losses) to the Delta region from other configurations are unknown.*" It is important to identify any losses (or benefits) to Delta agricultural water supply from Alternative 2 or 3. When is this analysis going to be completed?
- Page 8.1-33 In Section 8.1.4.4. The economic impacts of the CALFED program to a Delta city such as River Vista should be evaluated as an example. The multiplier effect to the local economy of taking agricultural land out of production should be analyzed. An analysis to the economic impact on city government should be included. This analysis should also be included in Section 8.6 – Regional Economics.
- Page 8.1-35 In Table 8.1.4-2, why are there no north Delta salinity numbers? There are significant agricultural diversions in the north Delta. If the different configurations have no impact on north Delta agricultural water quality, this should be specified.
- Page 8.1-38 Under "*Mitigation Strategies*" add a bullet stating that land taken out of production for CALFED purposes will continue to pay assessments to local agencies, such as levee protection/reclamation districts. Also add bullet providing a mitigation strategy for farms that are adjacent to newly formed restoration projects, which attract special status species. Operations on existing agricultural lands should not be impacted by a new CALFED development.

mitigation project.

- Page 8.2-6 In the third full paragraph in the second column there is a discussion about the increased costs changes in water quality because of Alternative 2. A similar paragraph is on page 8.2-7 for Alternative 3. In addition to relocation of intake facilities, improved treatment, or changes in water supply management, add provision of funding for implementation of best management practices to land uses in the watershed. This is particularly relevant to the North Bay Aqueduct.
- Page 8.2-6 In the "*Storage and Conveyance*" section there is reference to water supply costs avoided. a footnote or an appendix please provide the assumptions used in developing the average annual benefits.
- Page 8.2-17 Table 8.2.1-4 only includes data through 1993 for the North and South Bay Aqueducts. More recent information would provide a more realistic demand of water use because many of the years listed in the table are drought years when State Water Project supplies were reduced.
- Page 8.2-18 Under "*Water Supply and Related Infrastructure*" the description of the North Bay is incomplete. The document leaves the impression that the North Bay Aqueduct is the only source of water supply for the North Bay. In Solano County, the U.S. Bureau of Reclamation Solano Project provides a substantial source of water supply. Additionally, Napa County has local reservoirs that provides substantial additional supply. Also, the Solano County Flood Control and Water Conservation District has been renamed the Solano County Water Agency.
- Page 8.2-36 The economic analysis of changes in THM precursors and bromides under the CALFED alternatives are to be available in the future. This is an important piece of information and should be included in the next draft of the PEIS/EIR.
- Page 8.2-46 For both Alternative 2 and Alternative 3 the document states that there are increases in bromine and DOC at the North Bay Aqueduct intake but no economic analysis is available. The amount of the increase should be documented somewhere in the draft and if this is a significant impact an economic analysis should be prepared.
- Page 8.2-54 Under "*Mitigation Strategies*" add provision of funding for implementation of best management land use practices in watersheds to improved water quality. This is particularly applicable to the North Bay Aqueduct.
- Page 8.6-12 This page provides the results of an economic analysis of revenue lost and jobs lost due to the three CALFED alternatives. A description of the methods used to develop these numbers should be included in the text.
- Page 8.6-15 Under "*Mitigation Strategies*" various mitigations are proposed to reduce the economic impacts. The second paragraph under "*Mitigation Strategies*" states that none of the economic impacts would be considered significant. Some justification of this statement needs to be included. The sentence goes on to state that "*however, there would be substantial effects from agricultural land conversion in many areas.*" These phrases appear to be inconsistent. On one hand there is an acknowledgement of "*substantial adverse effects*" however the same sentence

states that they would not be considered significant. In Table 8.6-1 the impacts for the Delta region are all "*significant and mitigatable*." Additional information needs to be provided as to how the conclusion was developed and how it was determined that the significant impacts are mitigatable.

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Page 44 Target 4 is the restoration of tidal channels in the southern Yolo Bypass. One of the alleged benefits of this is to provide a migratory pathway for salmon. This target is identified with diamond meaning that additional research, demonstration and evaluation is needed to determine feasibility or ecosystem response. A fundamental question that should be addressed even before further study is whether or not the Yolo Bypass is an appropriate migration pathway for salmon and steelhead. The extremely limited number of salmon potentially spawning in Putah and Cache Creek probably do not warrant major changes in the Yolo Bypass. These types of changes could attract more salmon from the Sacramento River system into the Yolo Bypass where conditions are inferior to those in the central Delta. The text also mentions upper Sacramento River salmon using the Yolo Bypass as a pathway southward towards the Delta. Using the Yolo Bypass, particularly during low-flow conditions, as opposed to the Sacramento River would seem to increase the mortality of salmon. Further research on this topic is warranted even before it is suggested for further study.

Page 321 The last sentence in the third paragraph of the page states that releases below the Solano Diversion Dam are near zero in the driest years. This is incorrect. Even in dry years the minimum flow is 15 cfs in September and October and greater amounts in the summer months.

Additionally, in the first full paragraph in the second column there is reference to spawning gravels in lower Putah Creek. While there are locations in Putah Creek where there are gravel deposits suitable for spawning, they are limited in number and scope. The impression left in this paragraph is that there are widespread areas suitable for salmon and steelhead spawning. This is an incorrect portrayal.

At the very bottom of the second column a statement is made that "*native fish population are very low in Putah Creek except for the two-mile reach immediately below the Solano Diversion Dam.*" This is incorrect. Data accumulated over the last several years have shown that native fish populations are found throughout Putah Creek. The ratio of native to non-native fish decreases the further down the Creek from the Diversion Dam. However just to say that the native fish population is "*very low*" is incomplete.

Page 322 The first full sentence of this page states that "*the length of this reach is insufficient to insure the long-term viability of the native fish assemblage and a goal is to restore these native fish to a state of good condition.*" This is a judgement that was reached by a consultant hired to prepare a testimony for an instream flow trial in Putah Creek. This fact was disputed by other experts in the trial. It is inappropriate to put this type of statement in an environmental document that is to provide unbiased information to the public.

- Page 327 The bottom of this page references a "*Native Species Recovery Plan for Lower Putah Creek*". This plan was prepared as testimony for an instream flow trial on Putah Creek held in 1996. The plan was prepared by one set of parties to the litigation. The plan was subject to intense scrutiny during trial. Other experts disputed many of the findings in the plan and the final judgement excluded many of the recommendations in the plan because they were not substantiated. It is inappropriate to use the recommendations in this plan as base-line information in the Draft PEIS/EIR.
- Page 329 Target 1 of Central Valley streamflow discusses supplementing streamflows in the Yolo Bypass for the passage of salmon and steelhead through the Yolo Bypass. This target is given two diamonds meaning that the target will be implemented in stages with appropriate monitoring to judge benefits and successes. A similar recommendation is included on Page 44 and 45. That recommendation is given one diamond meaning further research and study is necessary. Please see my previous comment on Page 44 and 45 questioning whether even one diamond should be awarded to the concept of using the Yolo Bypass as a migratory pathway for salmon and steelhead. At a minimum Target 1 on Page 329 should be downgraded to one diamond.
- Page 330 The third paragraph under "*rationale*" states that "*improved streamflows are one of the most critical ecosystem elements required to promote healthy native fish populations in Putah Creek.*" We dispute this finding. Current streamflows are providing excellent habitat for both native and non-native fish in Putah Creek. We dispute the previously mentioned "*Native Species Recovery Plan for Lower Putah Creek*" developed by one of the parties to an instream trial. We can provide information from our experts on the fishery resources in Putah Creek.

Phase II Interim Report

Page 6. The discussion of water quality conflicts does not mention the potential conflict between ecosystem restoration activities and water quality. Some ecosystem restoration activities may degrade drinking water quality.

Page 24. In the discussion of Water Quality Interrelationships there is a statement that conserving water on a farm will reduce the amount of runoff that finds its way back into streams. The amount of runoff may be reduced, but the concentrations of contaminants in that runoff may be much higher. The result may be that the load of contaminants remains the same and for some portion of the watercourse, contaminant concentrations may be increased due to the higher concentrations in the runoff. This same faulty reasoning shows up on page 26.

Page 49. In the discussion of Issues and Concerns of the Water Quality Program there should be a statement that there are different opinions on ecosystem water quality targets and how they should be measured (chemical vs. biological success).

Page 49. In the listing of programmatic actions, the Water Treatment action is stated as "Reduce formation of disinfection by-products by controlling TOC, pathogens, turbidity, and bromides." These contaminants should be controlled by source control programs to the extent feasible rather than relying solely on water treatment. The specific action addresses drinking water quality issues with incentives for upgrading drinking water treatment plants to more advanced treatment.

We oppose reliance on treatment alone to address water quality concerns for drinking water supplies, and we request that this action be revised to indicate that CALFED does not intend to emphasize treatment as a means to address drinking water quality concerns. Reliance on treatment alone to address drinking water quality issues is not sufficiently protective of public health and is not consistent with EPA's source water protection programs.

Page 50. Water Quality Program Facts and Figures - need to state that organic carbon will only be reduced substantially through implementation of other program elements.

Page 52. Ecosystem Restoration Program Issues and Concerns - there is also concern that ecosystem actions may adversely affect water quality (mercury and TOC).

page 89. CALFED needs to evaluate the impacts of ecosystem restoration activities on drinking water quality and the ability to pump water into the North Bay Aqueduct. Relocating ecosystem actions to the north Delta may affect the ability of North Bay Aqueduct Contractors to pump water from Barker Slough unless pumping restrictions for Delta smelt are lifted or an alternative intake is provided for the North Bay Aqueduct.

Page 89. What would be done to improve North Bay Aqueduct water quality? Need to add language from Alternative 2 discussion on page 93. Consider watershed management for the North Bay Aqueduct.

Page 93. Need to evaluate the impacts on drinking water quality of in-Delta ecosystem restoration activities.

Page 93. In addition to evaluating relocation of the North Bay Aqueduct intake, CALFED should also evaluate watershed management options to improve North Bay Aqueduct water quality. The North Bay Aqueduct Contractors are working in conjunction with the Department of Water Resources to develop a watershed management plan for the Barker Slough watershed. CALFED should support the efforts of the contractors to improve water quality at the North Bay Aqueduct intake.

Page 93. Need to also evaluate treatment of agricultural drains to improve TOC.

Page 93. How would bromide be handled with Alternative 2?

Page 98. Consider watershed management for the North Bay Aqueduct (see comment on page 93).

Page 117. With Alternative 1, salinity would be reduced by about 30 percent at the State Water Project Banks Pumping Plant. There would not be a reduction in salinity at the State Water Project North Bay Aqueduct Pumping Plant. This should be acknowledged and discussed.

Page 118. There is a statement in the first paragraph that "organic carbon and bromide form unwanted and potentially harmful chemicals when water is disinfected with chlorine during drinking water treatment." Ozone used as a disinfectant also produces unwanted byproducts.

Page 133. The Summary Evaluation of Most Significant Technical Distinguishing Characteristics needs to include export water quality at the North Bay Aqueduct to fully disclose that the CALFED Program storage and conveyance alternatives will not improve North Bay Aqueduct water quality.

Page 137. While organic carbon in Delta water supplies exported from the south Delta may be at the national average, the North Bay Aqueduct organic carbon concentrations greatly exceed the national average. The average concentration of organic carbon is 8 mg/L with peaks exceeding 20 mg/L during the winter months. During the summer months, TOC is generally around 4 to 5 mg/L.

Water Quality Program Technical Appendix

Page 7. The discussion about parameters of concern needs to be revised to include the most recent recommendations of the Parameter Assessment Team and the Water Quality Technical Group regarding additional parameters of concern and potential parameters of concern.

Page 7. The last paragraph needs to be revised to reflect the fact that not all water quality problems associated with the parameters of concern are identified on Clean Water Act section 303(d) lists of impaired water bodies, which are prepared by the Regional Water Quality Control Boards. Parameters of concern are included on section 303(d) lists in those cases where the occurrence of the parameter is thought to be responsible for the violation of an existing numerical or narrative water quality objective. The disinfection by-product precursor parameters of concern, which are of interest to urban water suppliers, do not have water quality objectives. As a result, water quality problems associated with these parameters are not identified on section 303(d) lists of impaired water bodies.

Page 8. Table 1 needs to be revised to incorporate the most recent recommendations of the Parameter Assessment Team and the Water Quality Technical Group regarding additional parameters of concern and potential parameters of concern.

Page 8. The document states that CALFED anticipates that a great deal of water quality information throughout the geographic scope of the program will be compiled by CMARP; however, no information about CMARP is provided or referenced. We request that CALFED include detailed information on the purpose and role of CMARP in the Revised Draft PEIS/EIR.

We believe that a comprehensive monitoring and research program, such as CMARP, designed to provide an increased understanding of water quality problems and to document the progress and success of source control actions, is an essential component of the Water Quality Program. Despite years of study, many water quality problems are not yet properly understood and the relationship between in-stream biological effects and water quality standards exceedances or toxicity test results using standard bioassays is poorly understood. We understand it is difficult and may not be cost effective to take action prior to understanding the water quality problems of the Delta and its tributaries; however, CALFED needs to find the proper balance between

monitoring and taking action. We urge CALFED to substantively involve the interested stakeholders in the development of the details for CMARP.

Page 10. The discussion in paragraph 3 regarding numerical water quality objectives for drinking water sources is misleading and needs to be revised. It should be revised to reflect the fact that the existing numerical water quality objectives applicable to water bodies designated as drinking water supplies do not cover all of the parameters of concern to urban water suppliers using the Delta as a source of supply (i.e., bromide, TOC, salinity, pathogens, nutrients and turbidity). For the parameters of concern to drinking water suppliers, it is necessary to consider such factors as future likely regulatory scenarios, emerging health effects information, treatment feasibility and cost, and water resource management issues in the development of appropriate source water quality target levels.

For some water quality parameters, like metals and pesticides, there are federal and state drinking water standards (maximum contaminant levels or MCLs) that are applicable to treated drinking water. In these cases it is appropriate to use the drinking water standard as a measure of success in efforts to address drinking water beneficial use impairments. However, for some parameters of concern to urban water suppliers, there are no drinking water standards that are appropriate to use as source water quality target levels. For example, there are no standards for the disinfection by-product precursor parameters (bromide and TOC); rather, there are drinking water standards for disinfection by-products, which are compounds formed in drinking water as a result of disinfectants combining with bromide and TOC. For other drinking water parameters, such as pathogens and turbidity, there are drinking water treatment requirements that are based on source water quality characteristics. In addition, for salinity and nutrients, the existing MCLs for TDS and nitrate are not sufficiently protective of source water quality because they do not take into consideration resource management and reservoir management issues.

Page 11. We support CALFED's recent efforts to organize the Water Quality Technical Group into smaller working teams to develop details for the water quality actions contained in the Water Quality Program Technical Appendix and develop a prioritization and implementation strategy for the Water Quality Program. We also recognize that as an outcome of this effort, many of the water quality actions are likely to be revised substantially, and we expect that CALFED will release the revised Water Quality Program for another period of public review and comment with the Revised Draft PEIS/EIR. At this time we are providing comments on the water quality actions as published in the March 1998 Water Quality Program Technical Appendix, and we look forward to continuing to work with CALFED on the refinement of the water quality actions.

Page 14. Urban and Industrial Runoff Action 1-The methods for addressing beneficial use impairments associated with copper, zinc and cadmium from urban and industrial runoff include "Enforce existing source control regulations." This is also listed as a method under other water quality actions. We believe strongly that existing water quality control regulations should be enforced; however, we do not feel that this is an effective method for CALFED water quality actions. The water quality actions need to be revised to recognize those instances where water quality problems persist despite the existence of source control regulations, and to include methods that supplement and enhance existing source control regulatory programs in order to

achieve Water Quality Program goals. If there are indications that existing regulations are not being enforced, CALFED should provide a description of the problem and make specific recommendations to the regulatory agencies regarding areas where improved enforcement would help improve the Bay-Delta ecosystem. The first method listed under Urban and Industrial Runoff, Action 1, should be revised to read as follows: "Provide financial and technical assistance to municipal and industrial stormwater programs for improved implementation of existing source control requirements."

Page 23. Agricultural Drainage and Runoff Action 5-A Research/Monitoring section should be added to this action, and the following bullet item should be included: "Evaluate the feasibility of treating Delta Island agricultural drainage to remove TOC, through pilot scale testing."

Page 23. Agricultural Drainage and Runoff Action 6-Drinking water supplies are impacted by excessive nutrient levels. The action statement needs to be revised to read as follows: "Reduce the impairment of environmental, recreational and drinking water beneficial uses in the Delta Region and its tributaries associated with nutrients and ammonia through source control of agricultural surface drainage."

Page 23. Agricultural Drainage and Runoff Action 6-The first bullet item under Research/Monitoring needs to be revised to include evaluation of sources, mass loadings and effects of nutrients, and dairy wastes discharged in the Delta, San Joaquin River and Sacramento River regions.

Page 24. Water Treatment Action 1-The Water Quality Program includes this action to improve drinking water quality through various treatment techniques. Several of the North Bay Aqueduct Contractors have already upgraded or are making plans to upgrade their treatment plants to include ozone or enhanced coagulation. Installation of membrane filtration is not economically feasible and this treatment process wastes 15 to 25% of the water supply in the concentrated brine. Reliance on treatment technologies alone to address drinking water quality issues is not sufficiently protective of public health and is not consistent with EPA's source water protection programs. Source water protection must be a component of CALFED's Water Quality Program and action strategies addressing parameters of concern to drinking water agencies must be included.

Page 25. Water Treatment Action 1-The performance measure listed is incorrect and needs to be deleted. In those cases where drinking water quality concerns are addressed by upgrading drinking water treatment plants to more advanced treatment, the quality of the water at the drinking water intake will not change and decreased detection of drinking water parameters of concern would not be expected.

Page 27. Human Health Action 1-The first method for this action includes enforcement of existing source control regulations. Please see the above comment for page 14.

Page 35. Table 4. Potential Tools and Indicators of Success for Assessing the Effectiveness of CALFED Water Quality Actions-The discussion concerning the Water Quality Objectives tool needs to be revised to reflect the fact that the existing numerical water quality objectives

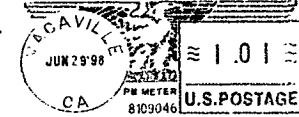
applicable to water bodies designated as drinking water supplies do not cover all of the parameters of concern to urban water suppliers using the Delta as a source of supply (i.e., bromide, TOC, salinity, pathogens, nutrients and turbidity). Please see the comment above for page 10.

Page 38. Table 5. CALFED Water Quality Targets for Parameters of Concern-This table needs to be revised to include the most recent recommendations of the Parameter Assessment Team and the Water Quality Technical Group regarding additional parameters of concern and water quality target levels.

Page 43. Table 5. CALFED Water Quality Targets for Parameters of Concern-The discussion in Table 5 concerning nutrients (nitrate) should be revised to reflect the fact that the nitrate MCL of 10 mg/L is not appropriate to use as a desirable in-stream concentration that provides water quality protection for surface water drinking water supplies. Implementation of the 10 mg/L nitrate MCL as a target level for in-stream concentrations would result in significant degradation of water quality. Nutrient levels are a determining factor governing the growth of taste-and-odor producing algae in water storage reservoirs.

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